

The

Call Letter

March, 2013

Vol. 39 – No. 3

RCA 1952

All transistor radio and TV demonstrated at the RCA Transistor Symposium, Princeton University November 18, 1952.

The TV utilized 37 (hand-picked) transistors and was all solid state except for the CRT. Both units are now on display at the David Sarnoff Library in Princeton, NJ.



<https://sites.google.com/site/transistorhistory/Home/us-semiconductor-manufacturers/rca-history>

NEXT MEETING: MARCH 9TH @10AM

The Northwest Vintage Radio Society

Post Office Box 82379

Portland, Oregon 97282-0379

The Northwest Vintage Radio Society is a non-profit historical society incorporated in the State of Oregon. Since 1974 the Society has been dedicated to the preservation and enjoyment of "Vintage radio" and wireless equipment.

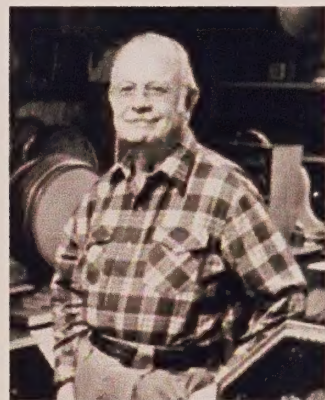
Membership in the Society is open to all who are actively interested in historic preservation. The dues are \$25.00 for domestic membership, due on January 1st of each year (prorated quarterly).

The Call Letter has been a monthly publication since 1974. It was originated with the founder, Bob Bilbie, and our first president, Harley Perkins. Through several editors and with the assistance of numerous society members, the Call Letter has continued to be a publication that informs members of the society's business and that supports the hobby of collecting, preserving, and restoring vintage radios.

Society meetings are held the second Saturday of each month at the Abernethy Grange Hall at 15745 S. Harley Ave. in Oregon City, Oregon. They convene at or about 10 AM for the purpose of displaying radios, conducting Society business, and exchanging information. Guests are welcome at all Society meetings and functions (except board meetings).

Other Society functions include guest speakers, auctions, radio shows, and radio sales which are advertised in the Call Letter and are held in and around Portland.

With each issue of the Call Letter, we remember Jim Mason, a charter member of the society who remained active until his death in 1999. A generous bequest from Jim's estate ensures the vitality of the Northwest Vintage Radio Society, and continued publication of the Call Letter.



Society Officers for 2013:

President	Sid Saul (503)869-5280	saulsidney@gmail.com
Vice-President	Mike McCrow (503)730-4639	tranny53@frontier.com
Treasurer	Ed Tompkins	edtomp@Q.com
Recording Secy	Charlie Kent (503)281-9335	radiogallerykent@qwestoffice.net
Corresponding Sec'y	Jim Harper (503)538-8738	JLHarperclan@aol.com
Board member at large	Mark Moore (503)286-5224	mark@pdxhistory.com
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Librarian	Robert Robinson (503) 255-3585	srrobins@comcast.net

March 2013

Table of Contents

NWVRS February Meeting Minutes.....2

NWVRS Calendar of Events5

Another Day for the VTVM.....6

The Hallock & Watson Radio Service.....9

February Display.....10

Play it Again Sam.....13

Swap Shop.....16

On the cover: Part of Dan Howard’s entry from the February meeting display of transistor radios.

Monthly Feature: Don Iverson Award Contest.

Tech Talk: No Tech Talk this month.

Visit our web site at <http://nwvrs.com>
and on Facebook:
www.facebook.com/northwest-vintage-radio-society

Next Call Letter deadline: March 27, 2013

The *Call Letter* is the official publication of the Northwest Vintage Radio Society. Circulation is limited to the membership and guests of the Society. The Society is not responsible for the material contributed for publication, nor the quality, timeliness, or accuracy of the items or services offered for sale in the SWAP SHOP. By common agreement of the board of directors, the buyer assumes all responsibility for the satisfaction of any transaction.

February Meeting Minutes

by Recording Secretary Charlie Kent

The February 9, 2013 meeting of the Northwest Vintage Radio Society was called to order by President Sid Saul at an early scheduled time of 9:30 am. A discussion took place on changing the meeting start time on a permanent basis to 9:30 am. A vote determined future meetings will remain at the 10:00 am start time. No guests or new members were in attendance.

Don Iverson Award Contest

The March 9, 2013 meeting will have the Don Iverson Award Contest. The contest rules were again reiterated and can be found in the February *Call Letter*.

April Swap/Sale

The April Swap/Sale will be held on Saturday, April 13 at the Aurora American Legion Hall. Brian Toon reported there are still 6 tables remaining for purchase downstairs. A list of paid tables was orally given.

May Meeting

Activities for the May meeting are: (1) The trash bash; (2) the Monthly Feature will be: Catalins; and (3) the Tech Talk: Charlie Kent – The History of Catalin and a Catalin repair demonstration.

Update on Grange Break In

Police are investigating the stolen radios. Since the February meeting we have reacquired the Grunow thanks to the diligence of several club members and the Oregon City Police.

Minutes

The January meeting minutes were corrected with one of the radios on display at the Pittock Mansion belonging to Blake Dietze. A request was made to have an addition to the minutes of the Audit Committee needing to get together and meet. A club member suggested that perhaps the minutes could be read if someone requested they be read. A motion passed to read the minutes if anyone requested they be read at

that particular meeting. The January minutes were read as printed in *The Call Letter*, and approved as corrected.

Membership

Pat Kagi led a discussion on when members should stop receiving *The Call Letter* due to nonpayment of membership dues. It was decided that if the dues were not paid in the March meeting, membership will be discontinued.

Member Bios

The 51 members in attendance gave a resounding vote of 40 in favor of continuing member bios in *The Call Letter*. Send bios to Tony Hauser.

Corresponding Secretary

James Harper is making sure links to our website are added as new ones present themselves.

Library

Robbie Robinson reported Bob Campbell presented a 43-page compilation on 30 years of NWVRS radio to the library. We have approximately 250 books in our library.

Membership Roster

Chris Butler stated membership roster photos can be taken at the monthly meeting if you need one for the upcoming membership roster.

Treasurer's Report

Ed Tompkins gave his Treasurer's Report. Financial data as reported to members will not be published in *The Call Letter* due to confidentiality.

Pittock Mansion Display

Sid Saul reported a very successful opening. George Kirkwood and Blake Dietze have radios displayed. Dick Karman did a great job with the audio clips. Sid negotiated a 2-for-the-price-of-1 entry ticket price for the Stereoscopes to Television: The Evolution of Home Entertainment going on through July 8, 2013. To take advantage of this discount offer, contact **Bill Norris at (503) 823-1652** before attending.

Note: You must present either your NWVRS membership card or name badge at entry when taking advantage of the special negotiated offer.

Merchandise

NWVRS navy polo shirts are available for \$22 for sizes that remain, and \$23 for 2XL. Caps are \$10. Name badges can be ordered at \$13.50 each with discount when multiples are ordered at once by members.

Website

Pat Kagi led a discussion on website radio donations emails. The topic was tabled.

Leads and Needs

John Cushing submitted a request: Wanted: Someone who has an unmolested or properly restored Crosley Model 122 Super Buddy Boy radio or chassis I can study to help in restoring my badly molested set. Contact John Cushing by email (phaeton@bendbroadband.com) or phone (360-701-6125).

Education Funds Committee

A motion was made, seconded and approved to change the Charity Committee to the Education Funds Committee.

Speed Feldshau Memorial Swap Meet / Picnic

Discussion ensued on the Speed Feldshau Memorial Swap Meet and Picnic in July, and was tabled.

Bylaws Committee

Chairman George Kirkwood reported the committee had not yet met, but there would be a Bylaws Committee report at the March meeting.

Recess

A motion was made, seconded and carried for a regular monthly meeting 15-minute recess at the end of the business meeting. The business meeting was adjourned at 12:04 pm, and recess taken. The NWVRS meeting was recalled back to order at 12:20 pm for the purpose of the Monthly Feature of *Transistor Radios*, and Tech Talk by Sid Saul of *First Commercial Transistor Radio Regency TR1*.

The meeting closed at 1:17 pm.

A warm thanks to Rudy Zvarich and Jeff LaDoe for their usual speedy re-assembling of the hall after the meeting.

NWVRS Calendar of Events

Most of the hamfest and ham swap meet information comes from: PNW Hamfair web page at www.n7cfo.com/amJradio/hf/hf.htm

- February 1 – July 8** **Pittock Mansion display. From Stereoscopes to Televisions: The Evolution of Home Entertainment.**
<http://pittockmansion.org/events/from-stereoscopes-to-televisions-the-evolution-of-home-entertainment/>
- March 9** **Mike & Key Swap Meet** Puyallup fairgrounds exhibition hall, Puyallup, WA.
<http://www.mikeandkey.org/flea.htm>
- March 9** **NWVRS monthly meeting 10am; tailgate swap 8:30.**
Don Iverson Award Contest. No Tech Talk.
- April 13** **NWVRS Spring Swap & Sale (new month!) 9am-3pm.**
American Legion Hall, 21510 Main St. Aurora, OR
- May 11** **NWVRS monthly meeting 10am; ANNUAL TRASH BASH 8:30.** Tech Talk: History of Catalin and Catalin repair. Display: Catalin Radios.
- May 31 – June 2** **Sea-Pac Hamfest** Seaside Convention Center, Seaside, OR. <http://www.seapac.org/>
- June 8** **NWVRS monthly meeting 10am; tailgate swap 8:30.**
Tech Talk: Arvin Radio.

Another Day for the VTVM

by President Sid Saul

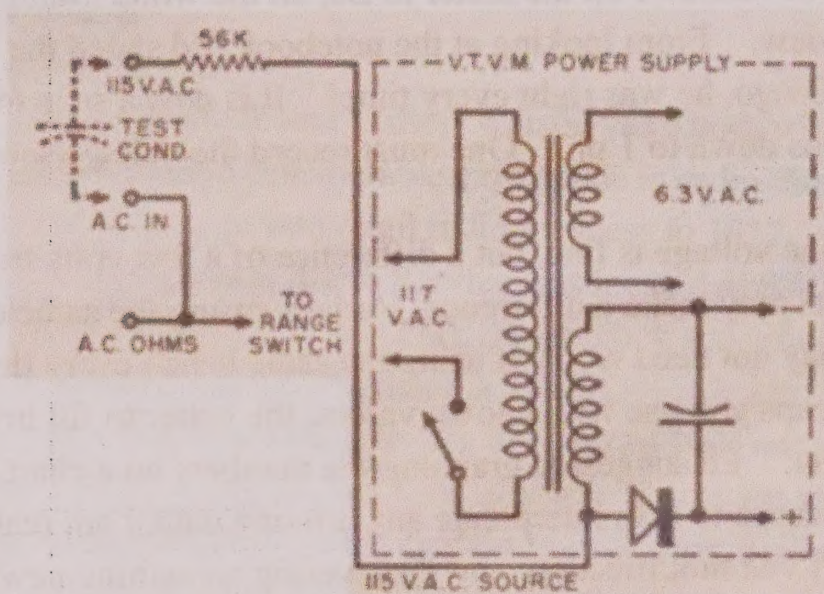


As most of the old WRNO regulars know, I have been relying on a digital capacitor tester for the past few years to test small value caps. Recently, panic set in upon breaking the LCD display. I often test caps in the low Picofarad (pF) range, some as low as 1 pF. Low value caps can be critical in some RF circuits. I have several magic eye cap checkers, as do most of you who have been in this hobby for long. I also use several low end digital multimeters, all claiming to check caps, most failing miserably when testing down in the low pF ranges.

Like Most modern Vacuum Tube Voltmeters (VTVM), my old Heathkit IM-18 had no provisions for checking caps. The IM-18 was produced from 1968 until 1976. Before the 1940's, it was common to find meters that checked caps down to about .005uF or 5000pF, but not down to 1 pF. With the addition of a single wire, any VTVM is capable of accurately testing caps from 10,000pF or .01uF, all the way down to 1pF. In fact, this is how it was done back in the 1930's. By the way, the VTVM was invented in 1895, patented in 1916. The circuitry is similar in most VTVM's.

The voltage drop across a capacitor at a fixed frequency is directly proportional to the current flow. So, with a fixed voltage (122 volts in my case), and frequency (60 cycles) at the secondary of the power transformer of our VTVM, we have all the ingredients. We

measure the small current flowing through the cap under test, something our VTVM's do best. I ran a wire from one side of the transformer's secondary, to a new post on the front panel. (See diagram)



Also, a resistor of about 50K is put in series with the wire to protect the power supply from accidental shorts. The caps are placed between this new post and the (AC volts-Ohms) input jack on the VTVM. You have noticed I replaced the original single phono jack input with banana jacks. Red for DC, green for ground, black for AC-IN, and another black on the extreme left connected to the transformer.

Club member, Ed Tompkins, generously invited me over to his house to help test this. He has a large selection of 1 percent precision silver -mica small value caps. We were very pleased to see repeatable results throughout the range from 1pF all the way to 10,000 pF. We used the meter's 1.5 volt AC scale for caps up to 30 pF, the 5 volt scale up to 70 pF, the 15 volt scale up to 180 pF, the 50 volt scale up to 1000 pF, and *finally* the 150 volt scale for the highest value .01uF or 10,000pF. Using a notebook that will stay with the meter, we noted the position of the meter's needle and the AC scale used. We decided the Ohm scale was easiest to read because it was located at the top. For example, 1pF caps using the 1.5 volt scale read .1, the 2pF cap read .5 (shown in photo). Higher value caps would require the next higher AC

scale as the meter reached the extremes. We concluded our testing using .01uF caps reading 25 on the 150 volt scale.

After the numbers were recorded, I shuffled all the caps into a pile and the fun began. I then clipped random caps onto the meter's black posts, reading the numbers on the meter to Ed, all the while hiding the caps from his view. From looking at the notebook, Ed stated the value of each cap. Bingo, he was right every time! It is now a snap to differentiate caps down to 1 pF. One must record the voltage seen at the wall socket.

Any Line voltage is fine, but a difference of a few volts from the comparison tests may make a difference. Variacs ensure the same outlet voltage. You may not need worry if using the same bench every time. Also the more caps you use with known values, the better to fill in large gaps in your data. Ed suggested graphing the numbers on a chart and using a French curve to help interpolate any missing data. I am really enjoying my VTVM modification, and discovering something new with another club member and friend is what this hobby is all about!

Until next time,

Sid



The Hallock & Watson Radio Service

by Art Redman

Joseph Hallock and Clifton Watson were both veterans of World War I. They gained considerable experience in radio during the Great War and decided to go into retail radio business in 1922. The store for the Hallock and Watson Radio Service was located at SW 192 Park Avenue which today is the 900 Park Street block according to the later address system adopted in Portland in 1932.

Their first Price Bulletin has the famous Halowat logo on the cover sheet even though at this time they were not in the radio manufacturing business. That famous logo of three lightning bolts on each side of the name Halowat became the famous brand used later on the front panel of their TRF receivers beginning in 1925 as covered in the December, 2012 Call Letter.

The Pacific Northwest companies sold in their Park Avenue store were two crystal sets made by the firm of Meyer-Blackwell located on SE Hawthorne Blvd. They also sold equipment made by their good friend Charley Austin of the Northwestern Radio Manufacturing Company including the Models SR-1, SR-2, SR-22, SR-25, one and two stage amplifiers, a variocoupler, mica capacitors, and the Model 23 Variometer. Also listed was a crystal receiver made by Kilbourne and Clark of Seattle with phones and antenna equipment selling for \$15.00.

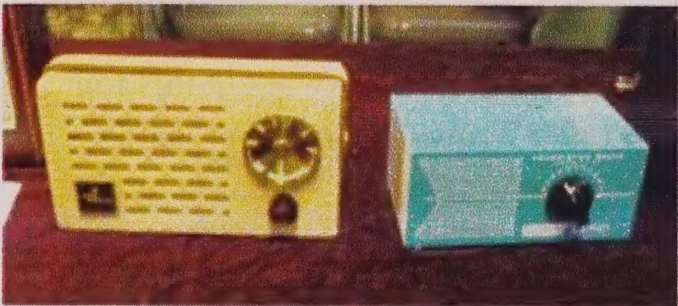
The national names sold by Hallock and Watson were the Kennedy Short Wave Receiver made in San Francisco, sets made by Clapp-Eastham, and the Westinghouse Aeriola Senior. The national brand crystal sets offered for sale were Emco, the DeForest Everyman, and Federal Junior. The amplifiers sold were two stagers made by Atwater-Kent, Kennedy, Federal, and the Radio Shop. (cont. on p. 12)

February Display

Some of the items from the February Transistor Radio display and Tech Talk from staff photographer Chris Butler.



February Display



The Hallock & Watson Radio Service (cont.)

(cont. from p. 9) The first set manufactured by Hallock and Watson was their Model RF12 dating from 1923 which was assembled at the factory site at 435 SE Alder. Not much is known about this four tube receiver. It had an unturned radio frequency amplifier, sold for \$100.00 and is listed in the Radio Collectors Guide. Judging by the date, the four tubes were most likely UX-199s. There are no known RF12s in existence that this writer knows of. Maybe a NWVRS member can supply an ad or picture of this receiver and write about it in the Call Letter. I am currently looking in the magazine Radio hoping to find an ad for the Model RF-12.

The Model RF22 was advertised in the March 1924 issue of Radio magazine as "A 'Five Tuber' That 'Acknowledges No Peer' and 'A Thing of Beauty.'" The set sold for \$125.00. The set had eight controls including two selector switches or taps, two tuning dials, and four rheostats to control tube filament voltages.

There are only two sets in existence of the model RF22 I know of. One is in the collection of a Los Angeles collector and the other is owned by our own Dick Howard. Both sets have a design flaw where the front panel cracks due to stress factors resulting in cracks which develop over time around the front mounting holes. A pristine model RF22 would be a real find worth several hundred dollars and almost as important as finding a rare Model RF12.

Play it Again, Sam

by David Wise

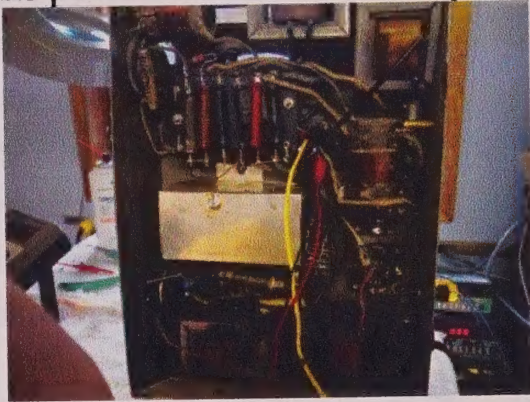
Jackson Bell Model 60 "Trumpet Tone" by Gilfillan Part I of II



About eight years ago, my Ex's friend Ava saw a vintage radio at an estate sale and bought it for me. It's been in the Backlog since then, but I finally got to it. The cabinet has a "Trumpet Tone" emblem on the front, but the label on the chassis says "Jackson Bell" and "Mfd by Gilfillan Bros, Inc". I couldn't decipher the model number, so I just upended the chassis (due to a low horizontal cabinet brace, you have to remove the tubes to take out the chassis) and started drawing up my own schematic. This is a skill I developed in my teens, and it has served me well ever since. I recommend you try it.

It's a TRF cathedral, with a nice music-stand scroll pattern for the speaker grille. It has two knobs, and a 0-100 thumbwheel for tuning. The tube lineup is 226 first RF amp, 226 regenerative second RF amp with front-panel regeneration control*, 224 C-bias detector, 226 audio driver, a pair of 171A's for output, and a 280 rectifier. The RF amps are

not neutralized; instead they are stabilized with "grid-stop" resistors. The volume control is the usual manual-gain single potentiometer scheme; going CCW it progressively grounds the antenna input, going CW it increases RF amplifier current. The detector is resistance-coupled to the driver, and the driver is shunt-fed into a phase-splitting transformer for the push-pull output tubes. The speaker is a Lansing electrodynamic, with its field coil doubling as a filter choke. Unlike most small sets, there's a second choke. More on that later. The power transformer has taps for 110V and 120V.



Chassis underside



Power transformer with taps

* By the way, the pot - including the knob - is at B+! I'll put wax or something over the setscrew to prevent surprises.

Immediately I felt this was an odd design. The first of the Midget sets, Cathedrals (or "Gothics") came out after the 1929 crash, if I recall correctly. The type 224 screen-grid tube was also registered in 1929. Earlier sets used 226 or 227 triodes, which were both registered in September 1927. The 226 was eclipsed by its indirectly-heated sibling, but still got some use for a while. Must've been cheaper. The odd thing about this Jackson-Bell is that it used the 224 only as detector, not as RF amp like everyone else. The usual lineup is either 26's or 27's for RF and audio (always with a 27 detector to avoid hum), or 24's for RF and 27's for detector and audio. This radio uses 26's (and the one 24), but NO 27's, a unique lineup as far as I know. Jackson-Bell must have had a 226 surplus and needed to use them up.

It's not a very good radio. Even working into a screen-grid detector, two triode RF amplifiers is neither enough sensitivity to pick up

anything but local stations, nor enough selectivity to keep them apart*. (Every other triode-RF radio in Rider's has three, four, or even five stages, usually neutralized.) Jackson Bell or Gilfillan addressed these shortcomings by adding regeneration around the second RF amplifier, but the control interacts with the volume and tuning controls; it almost takes one back to the bad old three-dial days. There's no AGC. Finally, the tuning range lags behind even 1930 standards, extending only from 570kHz to 1360kHz. This excludes most of my favorite stations.

* Why is the Q low? 1) The grid stop resistors are in series with the tube's input capacitance, giving said capacitance high D; 2) The triode's low output impedance reflects from the transformer primary to the secondary, effectively shunting the tank with a resistance.

A look under the chassis revealed the usual first-generation repair, replacing one of the filter capacitors with an axial-lead electrolytic which was of course itself bad by now. The volume control had been replaced, and the original resistor lead couldn't reach the terminal. The enterprising tech extended it with a segment cut out of an Allen wrench! But he didn't solder it properly, and it had come loose. I have the warmest regards for the previous owner, who apparently refrained from firing up the set, because the power transformer was intact. So were the audio transformers. Whew!

The rest of the caps were Cornell-Dubilier "Cubs", which can be recognized by their distinctive appearance. (They look like they are wound on wooden dowels.) I always replace paper caps, but these are especially bad; nothing leaks like them, not even Black Beauties. The resistors were all radial-lead, all the same physical size and painted in colors not following the RMA code. Unless I found a schematic, I would be unlikely to make more than a rough guess at their proper values.

End of Part I.

Swap Shop

FOR SALE: Thousands of tubes, hundreds of radio parts, panels, meters, surplus, etc. R5-D3 electronic surplus, Bob Lee, 9770 S.E. Stanley Ave., Milwaukie, OR 97222, (503) 513-0410

FOR SALE: Many Tubes New and Used – 30-day money back Warranty. For list visit www.antiquetubesupply.webs.com. I can ship OR bring to club meetings. Damon Vandehey, (503) 459-1777.

Leads and Needs

Questions about restoration of vintage radio? Visit Radiolaguy's web site often for this information plus lots of other interesting displays, photos, virtual museum plus lots of other information on vintage radio and television. Oh, yes, there are items for sale as well and NVRS members get a substantial discount on most of these items. Thank You, Sonny the Radiola Guy
Visit my vintage radio web site: <http://www.radiolaguy.com>

Radio Service

These members have indicated they are willing to perform radio repairs:

Roger Brown – (503) 693-6089

Bruce Baur - (503)-708-4537, brucebaur@comcast.net

Blake Dietze – (360) 944-7172, wb6jhi@ix.netcom.com - Full Service Shop

Jack Doyle – (503) 305-8097

Pat Hickman – (503) 887-9015 Web: www.classictubeaudio.com

Email: phickman@comcast.net

Jim Myers – (509) 525-6264

Todd Ommert – (503) 246-4141 Web: www.burlingame-radio.com

Email: burltv@msn.com

Tony Ranft – (360) 944-8489 or walterranft@hotmail.com – General repairs.

Dave Wise – (503) 648-0897, david_wise@phoenix.com

If you are willing to repair radios, give your name, phone and/or e-mail, and any comments to the *Call Letter* editor.

The Northwest Vintage Radio Society is not responsible in any disputes arising from services provided by members listed here. By common agreement of the board of directors, the buyer assumes all responsibility for the satisfaction of any transaction.

Tuned Into: Mike McCrow



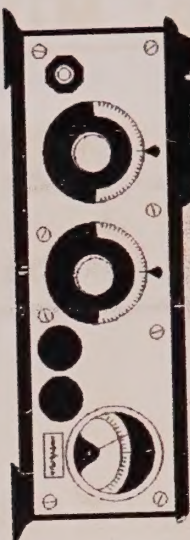
In 2008 I got a wild hair to look at my wife's old Philco console (46-226) to see if I could fix it. Maybe it just needs a tube. With no knowledge of radio I contacted Mark Oppat, at "Old radio Parts" in Plymouth, Michigan. He was kind enough to guide me through a recap, and test the filaments of the tubes. After several e-mails and soldering in capacitors and one resistor I successfully restored my first radio. I was hooked. Mark recommended I contact a radio club in my area. I contacted NWVRS and received e-mails from several members who invited me to the next meeting. I joined right away, and the rest is history. In the past five years I have had the fortune to meet so many people that have helped me learn about antique radio. More importantly I am thankful for all the friends I have met since joining our society. What a Hobby!

I have been a transmission mechanic for the past 40 years. I currently work at Beaverton Transmission. Besides radio I enjoy Golf in the summer and Bowling in the winter. I do these activities with friends of mine that I have known since grade school.

Here are a couple of pictures of my radio shop work bench, and a few of my favorite radios. I would like to take this opportunity to thank everyone that has spent the time to help me learn about restoring antique radio.



NW Vintage Radio Society
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